

## ABSTRACT

Phenolic compounds with a phenolic molecule to which are covalently linked an oxygen-containing group, a nitrogen or another oxygen containing group, and a C<sub>1</sub>-C<sub>4</sub> alkoxy group, obtainable from monocotyledonous plants, or by chemical synthesis, have been found to act as weight loss agents, appetite suppressants, mood enhancers and adjunctive therapy for arthritis, sleep apnea, fibromyalgia, diabetes and hyperglycemia. Additional chemical compounds of the present invention may include benzoxazinoids-cyclic hydroxyamic acids, lactams, and corresponding glucosides, which may serve as precursors to phenolic compounds. The phenolic compounds and precursors of phenolic compounds of the present invention, at concentrations suitable for human therapeutic use, may be obtained from monocotyledonous plants such as corn in their early growth states which are timely harvested for optimum yield.